

Seminar in Developmental Disorders (CLPS 1680B)

Prof. Dima Amso

Dima_Amso@brown.edu

Office Hours: Th 10-12 in 239 Metcalf.

Course Meeting Time: Monday 3-5:20

COURSE OBJECTIVE

This course will cover selected topics in developmental disorders from a developmental cognitive neuroscience perspective. Through presentations, readings, and lectures, students will learn about the methods, debates, theories, and principles of this interdisciplinary field.

ATTENDANCE POLICY

Attendance will be taken every class period and students are expected to attend every class. This course meets once a week. Therefore, missing a class equals missing a week of class time. This will factor into the in-class participation portion of your grade.

EVALUATION

Your final grade will be made up of presentations (20%), in-class participation in discussions (20%), weekly reviews of assigned journal articles (20%), and final paper (40%).

COURSE STRUCTURE

The first 30 or so minutes of each class period will be reserved for class business and lecture-type presentation by the professor. The next half-hour to forty-five minutes will consist of student presentations. There are 2 readings assigned per week. Everyone will write reviews of those articles. In addition, two students will present the highlights of those papers to the class and generate discussion. The remaining bulk of the class period will consist of discussion and in-class exercises.

ARTICLE REVIEWS

These will be critical reviews of the assigned journal articles. You will summarize the paper and its findings. You will then state its major accomplishments and concerns. Finally, you will make suggestions for changes. One single spaced page is the *top* length limit.

FINAL PAPER

You will choose a topic from the semester and write me a grant proposal on that topic OR a review of that topic. Much more detail will be provided as the semester progresses.

Tentative Schedule

*** All articles can be downloaded from your MyCourses site.**

September 10 - Concepts & Issues

Read before class:

1) Karmiloff-Smith (1998). *Development itself is the key to understanding developmental disorders.*

September 17 - Concepts & Issues

Read before class:

1) Casey et al. (2009). *Brain-Derived Neurotrophic Factor as a model system for examining gene by environment interactions across development.*

2) Pennington (2006). *From single to multiple deficit models of developmental disorders.*

September 24 - Environment vs. Biology

Read before class:

1) Guler et al (2012). *Electrophysiological evidence of altered memory processing in children experiencing early deprivation.*

2) Adlam et al. (2009). *Dissociation between recognition and recall in developmental amnesia.*

Oct 1 - On Comorbidity and its Substrates

Read before class:

1) Kaplan et al. (2001). *The Term Comorbidity Is of Questionable Value in Reference to Developmental Disorders : Data and Theory.*

2) Pinkham et al. (2008). *Neural basis for impaired social cognition in schizophrenia and autism spectrum disorders.*

Oct 8 No class

October 15 Autism – Cognitive & Perceptual Impairment

Read before class:

1) Samson et al (2012). *Enhanced visual functioning in autism: an ALE Meta-analysis.*

2) Charman et al (2011). *Defining the cognitive phenotype of autism.*

October 22 Autism- Socioemotional Impairment

Read before class:

1) Chevallier et al. (2012). *The social motivation theory of autism.*

2) Davies et al (2011). *Neural bases of gaze and emotion processing in children with autism spectrum disorders*

October 29 - Disorders of Cognitive Control I

Read before class:

- 1) Rubia et al (2012). *“Cool” Inferior Frontostriatal Dysfunction in Attention-Deficit/Hyperactivity Disorder Versus “Hot” Ventromedial Orbitofrontal-Limbic Dysfunction in Conduct Disorder: A Review*
- 2) Sukhodolsky et al. (2010). *Neuropsychological Functioning in Children With Tourette Syndrome With and Without Attention-Deficit/Hyperactivity Disorder.*

Nov 5 - Disorders of Cognitive Control II

Read before class:

- 1) Schepis et al. (2008). *Neurobiological processes in adolescent addictive disorder.*
- 2) Slutske et al (2012). *Undercontrolled temperament at age 3 predicts disordered gambling at age 32: A longitudinal study of a complete birth cohort.*

November 12 - Disorders of Learning & Memory –Cognitive & Perceptual

Read before class:

- 1) Beauchamp et al. (2008). *Preterm infant hippocampal volumes correlate with later working memory deficits.*
- 2) Peterson & Pennington (2012). *Developmental Dyslexia.*

November 19 - Disorders of Learning & Memory – Socioemotional

Read before class:

- 1) Teicher et al (2012). *Childhood maltreatment is associated with reduced volume in the hippocampal subfields CA3, dentate gyrus, and subiculum.*
- 2) Oler et al (2010). *Amygdalar and hippocampal substrates of anxious temperament differ in their heritability.*

Nov 26 – Genetics

Read before class:

- 1) Cornish et al. (2012). *Does Attention Constrain Developmental Trajectories in Fragile X Syndrome? A 3-Year Prospective Longitudinal Study.*
- 2) Fung et al (2012). *Conceptualizing neurodevelopmental disorders through a mechanistic understanding of fragile X syndrome and Williams syndrome.*

Dec 3 - On the Spectrum , SES and IQ

- 1) Noble et al. (2006). *Brain-behavior relationships in reading acquisition are modulated by socioeconomic factors.*
- 2) Sarsour et al. (2011). *Family Socioeconomic Status and Child Executive Functions: The Roles of Language, Home Environment, and Single Parenthood.*

December 8 – Course Review and Final Paper Preparation

Dec 8th Begins Reading Period